

Serial No.: 10/735,526  
Amdt. dated 07 September 2006  
Reply to Office Action of 05 July 2006

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**Amendments to the Claims:**

This listing will replace all previous listings and versions of the claims in the application:

**Listing of claims:**

What is claimed is:

1. (Original) A method of managing a bodily process that utilizes S-adenosylmethionine (SAM) in a pathway of the bodily process comprising administering a composition comprising a mixture of an isoflavone, an isoflavone synergist, and a methylation support compound.
2. (Original) The method of claim 1, wherein the bodily process is hormone imbalance.
3. (Original) The method of claim 2, wherein the pathway is methylation of estrogenic metabolites.
4. (Original) The method of claim 3, wherein the pathway is catalyzed by catechol O-methyltransferase (COMT).
5. (Original) The method of claim 3 wherein the pathway is catalyzed by S-adenosyl-L-methionine:delta-24[25]sterol methyltransferase.
6. (Original) The method of claim 1, wherein the pathway is methylation of a compound selected from the group consisting of catecholamines, neurotransmitters, proteins, membrane phospholipids, fatty acids, nucleic acids, porphyrins, choline, carnitine, creatine, and hormones.
7. (Original) The method of claim 6, wherein the hormone is selected from the group consisting of peptide hormone, amine hormone, steroid hormone, and eicosanoid.

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8. (Original) The method of claim 1, wherein the pathway is DNA methylation.
9. (Withdrawn) A method of treating or preventing a condition or disease involving a bodily process that utilizes S-adenosylmethionine (SAM) in a pathway of the bodily process comprising administering a composition comprising a mixture of an isoflavone, an isoflavone synergist, and a methylation support compound.
10. (Withdrawn) The method of claim 9, wherein the bodily process is hormone imbalance.
11. (Withdrawn) The method of claim 10, wherein the condition or disease is selected from the group consisting of cardiovascular disease, hot flushes, cancer, premenstrual syndrome, endometriosis, uterine fibroid tumors, fibrocystic or painful breasts, cervical dysplasia, systemic lupus erythematosus, vaginitis, fatigue, cognitive dysfunction, depression, and irritability.
12. (Withdrawn) The method of claim 10, wherein the condition or disease is treated or prevented through a mechanism selected from the group consisting of promoting C-2 hydroxylation over C-4 and/or C-16 hydroxylation of estrogen and estrogenic metabolites, reducing oxidation of catechol estrogens (2-OH and 4-OH), increasing circulating concentrations of sex hormone binding globulin (SHBG), inhibiting activity of aromatase, and upregulating Phase I and Phase II liver enzymes.
13. (Withdrawn) The method of claim 12, wherein the composition that is administered further comprises a component selected from the group consisting of cruciferous vegetables, indole-3-carbinol, vitamin A, vitamin E, vitamin C, N-acetylcysteine, turmeric, green tea, lycopene, .alpha.-lipoic acid, flavonoids, folate, vitamin B2, vitamin B6, vitamin B 12, trimethylglycine, magnesium, fiber, lignans, d-limonene, probiotics, and calcium D-glucarate.
14. (Withdrawn) The method of claim 9, wherein the condition or disease is selected from

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the group consisting of cancer, liver damage, brain cell degeneration, depression, osteoporosis, fibromyalgia, gastrointestinal injury, liver dysfunction, migraine, Parkinson's disease, Alzheimer's disease, organic brain syndrome, epilepsy, HIV-related neurologic complications, multiple sclerosis, metabolic defects, and spinal cord disease.

15. (Original) The method of claim 1, wherein the isoflavone is derived from a food source selected from the group consisting of kudzu root, soy, legumes, alfalfa, clover, and licorice root.

16. (Original) The method of claim 1, wherein the isoflavone is derived from kudzu.

17. (Original) The method of claim 1, wherein the isoflavone synergist is a ingredient selected from the group consisting of curcumin, rosemary extract, and resveratrol.

18. (Original) The method of claim 1, wherein the methylation support compound is an ingredient selected from the group consisting of choline, trimethylglycine, cobalamin and derivatives thereof, and folic acid and derivatives thereof, riboflavin, pyridoxine, and magnesium.

19. (Original) The method of claim 1, further comprising at least one ingredient selected from the group consisting of vitamin, mineral, fortifying amino acid, carotenoid, and flavonoid.

20. (Original) The method of claim 19, wherein the vitamin is at least one vitamin selected from the group consisting of vitamin A, vitamin D, vitamin E, vitamin K, thiamin, riboflavin, niacin, pyridoxine, pantothenic acid, biotin, vitamin C, and derivatives thereof.

21. (Original) The method of claim 19, wherein the mineral is at least one mineral selected from the group consisting of calcium, magnesium, chromium, copper, iodine, iron,

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phosphorus, molybdenum, selenium, zinc, manganese, sodium, and potassium.

22. (Original) The method of claim 19, wherein the fortifying amino acid is at least one amino acid selected from the group consisting of L-lysine, L-threonine, and N-acetylcysteine.

23. (Original) The method of claim 19, wherein the carotenoid is at least compound selected from the group consisting of lutein, zeaxanthin,  $\beta$ -carotene, and lycopene.

24. (Original) The method of claim 19, wherein the flavonoid is at least compound selected from the group consisting of quercetin, chrysin, and hesperidin complex.

25. (Withdrawn) A method of treating a female mammal experiencing hot flushes comprising administering to said mammal a composition comprising a mixture of an isoflavone, an isoflavone synergist, and a methylation support compound.

26. (Withdrawn) The method of claim 25, wherein the isoflavone is derived from a food source selected from the group consisting of kudzu root, soy, legumes, alfalfa, clover, and licorice root.

27. (Withdrawn) The method of claim 25, wherein the isoflavone is derived from kudzu.

28. (Withdrawn) The method of claim 25, wherein the isoflavone synergist is a ingredient selected from the group consisting of curcumin, rosemary extract, and resveratrol.

29. (Withdrawn) The method of claim 25, wherein the methylation support compound is an ingredient selected from the group consisting of choline, trimethylglycine, cobalamin and derivatives thereof, and folic acid and derivatives thereof, riboflavin, pyridoxine, and magnesium.

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30. (Withdrawn) The method of claim 25, further comprising at least one ingredient selected from the group consisting of vitamin, mineral, fortifying amino acid, carotenoid, and flavonoid.

31. (Withdrawn) The method of claim 30, wherein the vitamin is at least one vitamin selected from the group consisting of vitamin A, vitamin D, vitamin E, vitamin K, thiamin, riboflavin, niacin, pyridoxine, pantothenic acid, biotin, vitamin C, and derivatives thereof.

32. (Withdrawn) The method of claim 30, wherein the mineral is at least one mineral selected from the group consisting of calcium, magnesium, chromium, copper, iodine, iron, phosphorus, molybdenum, selenium, zinc, manganese, sodium, and potassium.

33. (Withdrawn) The method of claim 30, wherein the fortifying amino acid is at least one amino acid selected from the group consisting of L-lysine, L-threonine, and N-acetylcysteine.

34. (Withdrawn) The method of claim 30, wherein the carotenoid is at least compound selected from the group consisting of lutein, zeaxanthin,  $\beta$ -carotene, and lycopene.

35. (Withdrawn) The method of claim 30, wherein the flavonoid is at least compound selected from the group consisting of quercetin, chrysin, and hesperidin complex.